# AMG-16 TSTCore Update

17 December 1996

# **Topics**

- Events Calendar
- Service/Joint Staff Transition Activities
- Supporting Software Development
- Security Plans
- Outreach/Education
- Internet Engineering Task Force
- Upcoming Events

# **Events Calendar**

-	9-10 Oct 96	AMG-15
-	28 Oct 96	Visit with PPF (Orlando)
-	29 Oct 96	Visit with JTFp (Orlando)
-	12 Nov 96	Visit with Engineering PF (Pax River)
-	13 Nov 96	Visit with Analysis PF (Arlington)
-	14 Nov 96	Fed Mgmt Tech Exchange (DMSO)
-	21 Nov 96	Security Tech Exchange (DMSO)
-	2-6 Dec 96	I/ITSEC, Orlando
-	9-12 Dec 96	ITEA, Las Cruces, NM
-	12 Dec 96	Object Model Tech Exchange
-	16 Dec 96	TM and DDM Tech Exchanges
-	16 Dec 96	RTI F.0 Release
-	17-18 Dec 96	AMG-16
-	12-17 Jan 97	Object Management Group, Tampa
-	11-12 Feb 97	AMG-17
-	25-26 Feb 97	MORS Mini-Symposium, Albuqueque
-	3-7 March 97	Simulation Interoperability Workshop

#### Service/Joint Staff Transition Activities

- Ongoing discussions sharing individual Service and Joint Staff implementation actions to date
  - Army and Air Force have called for each simulation manager's plan, with responses due 31 January
  - Navy has informally surveyed but no formal call yet
  - J-8 working through Joint Modeling and Simulation Executive Panel
- Clarified terms in 10 September Kaminski letter
- At Service request, DMSO has supported ten HLA technical interchange meetings with the Services
- Have walked through strawman decision process regarding HLA-compliance decisions for each Service and Joint Staff, which helped to clarify rationale and process
- Will continue to hold regular meetings as a policy/programmatic adjunct to AMG

#### **AMG Membership Expansion**

- DMSO will adjust AMG membership based on following prerequisites
  - Nominated by a DoD Component M&S Management Office
  - Programs currently involved in actual development of an HLA-compliant simulation, or modifying a simulation to make it HLAcompliant
  - Folks with dirty hands, not oversight offices
  - Government employee as the representative; contractors still involved but can't vote
  - Self-funded

# Runtime Infrastructure (RTI) Software Development

- Initial Runtime Infrastructure release (familiarization version F.0) this week
- Follow-on versions will follow through 1997
  - F.0 versions for additional platforms (SGI, HP, others) and language interfaces (Ada, Corba cap) starting in January 97
  - Added capabilities and more performance in version 1.0 in spring 97
  - Data distribution management in version 1.1 in summer 97
- Competitive procurement for version 2.0 is underway
  - First phase: multiple awards for designs in January 97
  - Second phase: software development awards in summer 97
  - Release anticipated in spring 1998

# **Terminology Clarification**

- Federation Execution Data (FED)
  - the federation specific data, as specified in the IF Spec, which is provided to the RTI as part of the federation creation process.
  - the FED is the IFSpec controlled portion of the->
- RTI Initialization Data (RID)
  - may also include other data specific to the particular implementation.

FED is what would be subject to data standardization so all RTI implementations would use the same format etc. to comply with the HLA Interface Specification

- FED Data Interchange Format (DIF) to be developed as part of supporting data standards

#### **Object Model Development Tools**

- Initial proof-of-principle tools developed during baseline (demonstrated at August AMG)
- Alpha release of second iteration were demonstrated at I/ITSEC and are being released to interested AMG member programs this week
- Initial implementation of Object Model Library
- OMT Data Interchange Format (OMT DIF) supports exchange of completed OMs among tools and library
  - implemented in both tools and Object Model library

# **Object Model Data Dictionary**

- HLA does not prescribe the data 'fill' for the simulation and federation object models (SOMs & FOMs); only the OMT format
- Interoperability requires common data semantics and syntax
- Under AMG, DMSO is leading development of a common data dictionary
  - Initial effort is a cooperative effort with SISO to develop a reference FOM for current DIS applications, with standard data entries
- Common data dictionary will be provided to OM developers for use in developing SOMs and FOMs
  - Will be available on MSRR; link into tools
- This is part of the third leg of the Common Technical Framework (data standards)
  - coordinated with the DoD Data Administration effort (DoDD 8320.1)
  - preference is to use existing data standards and same data semantics and syntax as operational systems

# **HLA Security Architecture**

- HLA Security Architecture has been developed as part of the development of the Baseline HLA
  - held regular technical exchanges in conjunction with AMG meetings,
     with DIS community and security organizations
- Mid-term guarded architecture provides an acceptable approach to supporting HLA applications that span multiple security domains
  - Security technical exchange reviewed approach in mid-November
  - Document scheduled for January 1997
- FY97 activities
  - Functional definition of 'guard federate'
  - General certification and accreditation process for federations

Technical exchange on security and the federation development process at close of day1 of AMG meeting

#### **HLA Education/Outreach**

- Over the past two months DMSO has held a series of technical exchanges with the Services and selected programs (e.g., F-22, SC21)
- Much HLA discussion at last week's I/ITSEC conference in Orlando
  - Dr. Jones' and VADM Truly's keynotes, DMSO booth, two tutorials by DMSO, many other paper sessions
  - many HLA-based products/displays on floor

continued

#### **HLA Education/Outreach**

- Tailored technical presentations are based on 'reusable' segments on the following topics:
  - Policy and Process
  - HLA Technical Specifications
    - Rules, IF Spec, OMT Spec
    - Time Management, Data Distribution Management
  - Runtime Infrastructure
  - HLA Prototyping Experiences (by prototypers)
- Two educational packages are in preparation
  - ACETEF: Applications to T&E and Engineering (based on engineering protofederation); hosted at ACETEF, Pax River
  - AEGIS: Applications to Training Federations (based on joint training protofederation); hosted at JSIMS testbed, Orlando

#### **HLA Education/Outreach**

- DMSO Homepage continues to be primary source of HLA information (www.dmso.mil)
  - Technical library contains HLA Specifications, supporting documents, briefings and published papers
  - HLA\_Spec@dmso.mil (e-mail address) provides open opportunity for comments on the baseline specifications using prescribed form
  - HLA Specification Bulletin Board posts comments and responses
  - HLA@dmso.mil is an open mail address for general comments and questions
- HLA\_online@dmso.mil is a new mail reflector designed for broad dissemination of up-to-date HLA information
  - Will provide notification of new information as it becomes available on the home page
- An HLA cell is being formed in the Modeling and Simulation Support Activity (MSOSA) to support information requests

# Internet Engineering Task Force (IETF)

- Large Scale Multicasting Working Group
- Two draft documents
  - Scenarios for and Characteristics of Large Scale Distributed Simulations
  - Limitations of Current IETF Services to Support Large Scale Distributed Simulations
    - 2nd Draft of Each Presented to IETF in San Jose 12/9/96, out for broader review
      - Sent to HLA TST for review; available to AMG
      - Will be Presented to March 97 Simulation Interoperability Workshop
    - . Want to Determine
      - Are the Scenarios Representative of Our Applications?
      - Are the Limitations Part of our Problem Set? Past, Present & Future?
    - Final Version to be Delivered to IETF in April 97
  - Feedback will support an assessment of how we should participate in IETF

#### **Upcoming Events**

- MORS Mini-Symposium on Linking Simulations for Analysis
  - February 25-26, Albuquerque
  - February 24, Tutorial on Common Technical Framework including HLA
  - POC: MORS Office
- Object Management Group (OMG)
  - Next meeting is 12-17 January, Tampa
  - Kickoff meeting of a Special Interest Group (SIG) for distributed simulation
  - POC: Fred Kuhl (fkuhl@mitre.org)
- Simulation Interoperability Workshop
  - March 3-7, Orlando